

Chapter 1



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Piping plover on nest

Introduction

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Purpose and Need for Plan

This Comprehensive Conservation Plan (CCP) for the Rachel Carson National Wildlife Refuge was prepared pursuant to the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd et seq.; Refuge Improvement Act). An Environmental Assessment (EA), required by the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347), was prepared concurrently with the draft CCP.

This final CCP presents the combination of management goals, objectives, and strategies that we believe will best achieve our vision for the refuge; contribute to the mission of the National Wildlife Refuge System (Refuge System); achieve refuge purposes; fulfill legal mandates; address key issues; incorporate sound principles of fish and wildlife management, and serve the American public. The CCP will guide management decisions and actions on the refuge over the next 15 years. It will also be used as a tool to help the natural resource agencies of the State of Maine, our conservation partners, local communities, and the public understand our priorities.

This document has 4 chapters and 14 appendixes. Chapter 1 introduces the plan and sets the stage for chapters 2 through 4. It

- describes the purpose and need for a CCP;
- identifies national, regional, and state plans that influenced this plan;
- highlights the purposes for establishing the refuge and their land acquisition histories; and,
- presents the vision and goals for the refuge.

Chapter 2, “The Planning Process,” describes the planning process we followed, including public and partner involvement, in the course of developing this final plan.

Chapter 3, “Refuge and Resource Descriptions,” describes the existing physical, biological, and human environment.

Chapter 4, “Management Direction and Implementation,” presents the general refuge management actions and the goals, objectives, and strategies that will guide decision-making and land management. It also outlines our staffing and funding needs to accomplish the management direction.

Fourteen appendixes provide additional documentation and reference information used in compiling this document.

Developing a CCP is vital for the management of each refuge. This final CCP will provide strategic management direction over the next 15 years, by

- providing a clear statement of desired future conditions for habitat, wildlife, facilities, visitor services, and staffing,
- providing State of Maine agencies, refuge neighbors, visitors, and conservation partners a clear understanding of the reasons for management actions,
- ensuring refuge management reflects the policies and goals of the Refuge System and legal mandates,
- ensuring the compatibility of current and future public use,
- providing long-term continuity and direction for refuge management, and

- providing direction for refuge staffing, operations, maintenance, and budget requests.

The present need to develop the CCP for the Rachel Carson refuge is manifold. First, the Refuge System Improvement Act requires that all national wildlife refuges have CCPs in place by 2012. Second, the refuge lacks a master plan to accomplish the actions above in an environment that has changed dramatically since the refuge was first established. For example, significant development pressure and population growth in coastal Maine are impacting the integrity of refuge habitats, and staffing and visitation has increased. Third, we have developed strong partnerships, vital to our continued successes, with land trusts, watershed associations, and other conservation groups throughout the 11-town refuge region. Our responsibility is to develop our priorities clearly through this plan. Finally, we need a CCP to guide us in future habitat management and land protection that promotes the conservation of significant coastal ecosystems and Federal trust species.

Our planning process, described in chapter 2, allows State of Maine agencies, the public, and our conservation partners to engage in resolving management issues and concerns. All of these reasons clearly underscore the need for the strategic direction a CCP provides.

Project Area

The Rachel Carson refuge lies in the heart of the Gulf of Maine watershed, in a region of great biological diversity (map 1-1). The refuge harbors estuaries that provide nurseries for many marine fish. Its tidal rivers provide passage to upstream spawning areas for anadromous fish. Its diverse aquatic and upland habitats support breeding, migrating and wintering birds, and provide essential habitat for nationally threatened and endangered species. Because it lies at the mouth of more than a dozen tidal rivers and their watersheds, the refuge sits at a critical place in the increasingly developed, fragmented region where those rivers meet the sea.

The refuge stretches along 50 miles of coastline in York and Cumberland counties in southern Maine (map 1-2). Our project analysis area includes lands owned by the Service as well as lands evaluated for future Service acquisition.

The 5,293-acre refuge has 10 divisions between Kittery and Cape Elizabeth encompassing approximately 35 percent tidal, 10 percent freshwater wetlands and 55 percent uplands habitats. Tidal habitats include beach, dune, dune grassland, river, rocky shore, estuarine, bay and salt marsh. Freshwater wetlands include cattail marsh, bog, emergent scrub-shrub wetlands, pocket swamps, red maple swamps and floodplain forest. Most of the upland forests consist of mixed oak and pine forest; however, hemlock, spruce and pitch pine stands as well as hickory and maple forests also grow here. Viburnums, winterberry, blueberry, serviceberry, Virginia rose and male berry compose much of the shrub understory. Other upland habitats are composed of grassland units and thicket units. Habitats are quite diverse, containing elements from the more southern oak-pine forests and the softwood forests of the north. Those two community types blend in Southern Maine, creating a wealth of biodiversity.

History of Refuge Establishment, Acquisition, and Management Purposes

Rachel Carson refuge was established to preserve migratory bird habitat and waterfowl migration routes associated with southern Maine's coastal estuaries. In the mid-1800s, the estuarine habitats teemed with wildlife. The fishing industry supported many people, and commercial hunters made their living from the wildlife that frequented the marshes. Spurred by the arrival of the railroad in 1842, recreational use of the Maine Coast increased in the 19th and 20th centuries. Thousands of visitors came by train, trolley, and later, automobile. Seasonal and vacation homes built on the edge of the salt marsh quickly followed. By the 1950s

and early 1960s, land was at a premium for prospective landowners and individuals and groups interested in protecting natural resources.

On December 16, 1966, Congress established the Coastal Maine National Wildlife Refuge under the authority of the Migratory Bird Conservation Act. In a formal dedication ceremony on June 27, 1970, the refuge was renamed in honor of scientist and author Rachel Carson, who spent much of her life along the Maine Coast. During the mid-1970s, the refuge acquired 4,000 acres, and has expanded its boundary several times over the years to protect coastal salt marshes from encroaching development, and thereby protect vital wildlife habitat. Its 10 divisions stretch 50 miles along the coast, and share more than 5,000 acres with the municipalities of Cape Elizabeth, Scarborough, Old Orchard Beach, Saco, Biddeford, Kennebunkport, Kennebunk, Wells, Ogunquit, York, and Kittery.

Rachel Carson refuge was established under the authority of the Migratory Bird Treaty Act for “use as an inviolate sanctuary, or for any other management purpose, for migratory birds” 16 USC 715d, Migratory Bird Conservation Act. Other authorities include:

- “...suitable for - - - 1) incidental fish and wildlife oriented recreational development, 2) protection of natural resources, 3) conservation of endangered or threatened species ...” 16 USC section 460k-1 Refuge Recreation Act
- “...conservation of wetlands of the Nation in order to maintain the public benefits they provide to help fulfill international obligations contained in various migratory bird treaties and conventions...” 16 USC Section 13901(b) 100 Stat 3583 Emergency Wetlands Resources Act of 1986.
- “...for the development, advancement, management, conservation and protection of fish and wildlife resources ...” 16 USC Section 742f(a)(1) Fish and Wildlife Act of 1956
- “... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services” 16 USC Section 742f(b)(1) Fish and Wildlife Act of 1956

The refuge has been very successful over the past two decades in acquiring new lands to meet conservation priorities for the Refuge System. During that period more than 2,486 acres have been acquired representing a financial commitment of \$20 million dollars. That consistent support in land protection provides a strong indication that the refuge will meet habitat protection goals.

National and Regional Mandates Guiding This Project

The U.S. Fish and Wildlife Service and Its Mission

This section presents hierarchically, from the national to the local level, highlights of the laws, Service policy, regulations, and resource plans and conservation initiatives that directly influenced the development of this CCP

The Service, as part of the Department of Interior, administers the National Wildlife refuge System. The Service mission is

“Working with others, to conserve, protect, and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.”

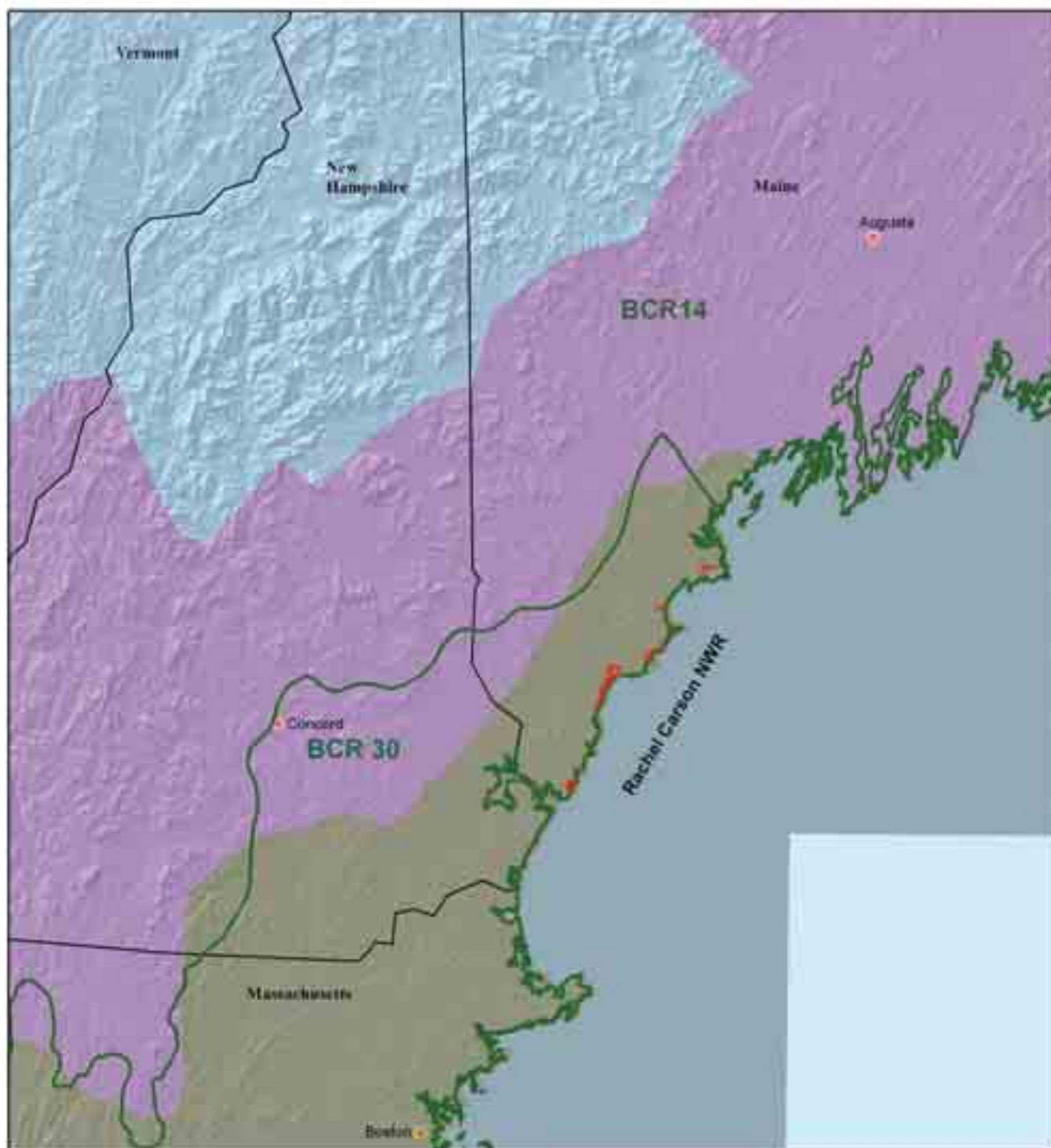
Congress entrusts the Service with the conservation and protection of such national resources as migratory birds and fish, Federal-listed endangered and threatened species, inter-jurisdictional fishes, wetlands, certain marine mammals, and national wildlife refuges. The Service also enforces Federal wildlife laws and international



U.S. Fish and Wildlife Service

NABCI Bird Conservation Regions and Partners in Flight Physiographic Regions

Rachel Carson National Wildlife Refuge - Map 1-1



- Rachel Carson National Wildlife Refuge
- NABCI Bird Conservation Regions
- Partners in Flight Region 9
- Partners in Flight Region 27

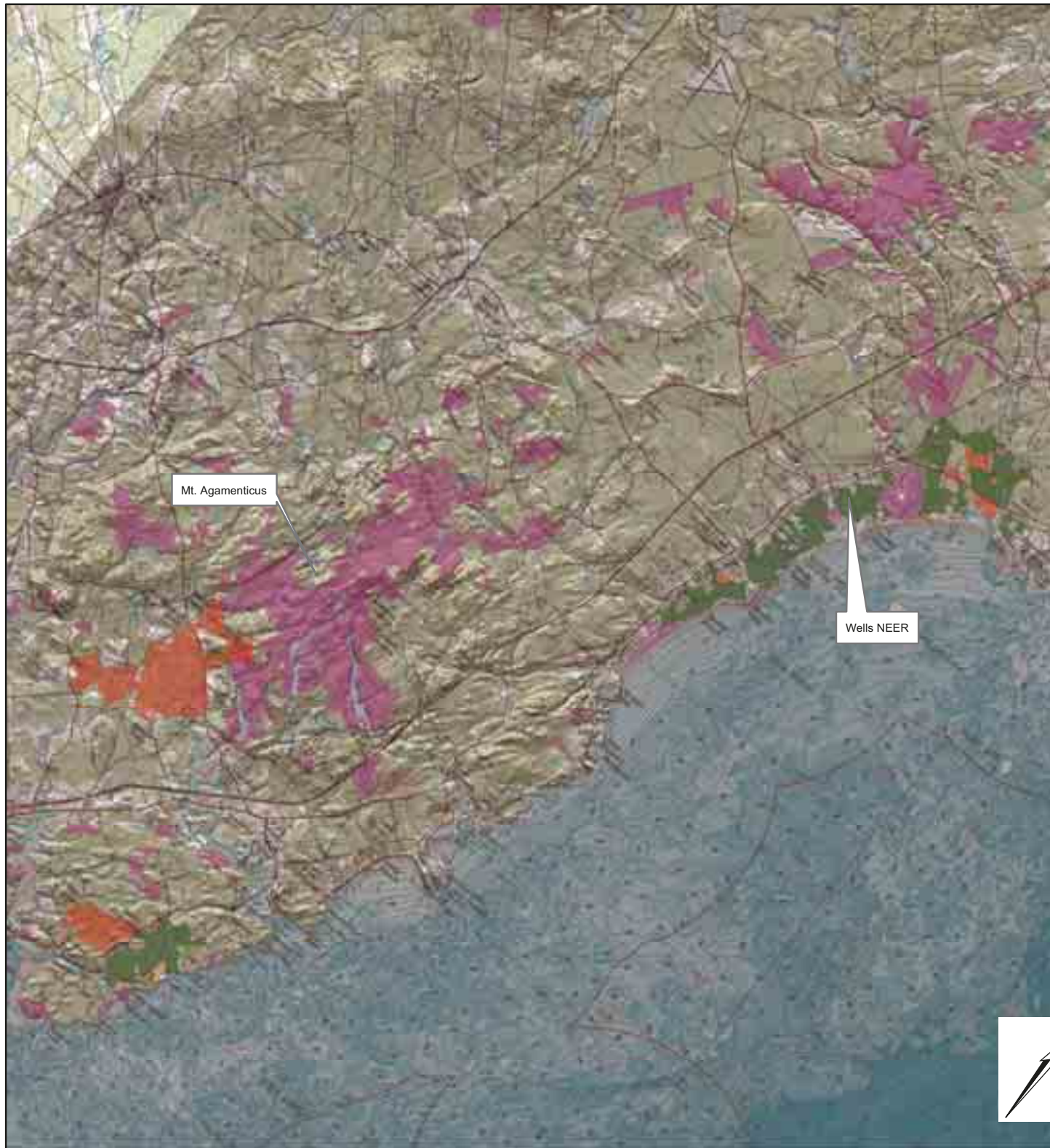


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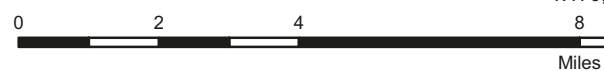


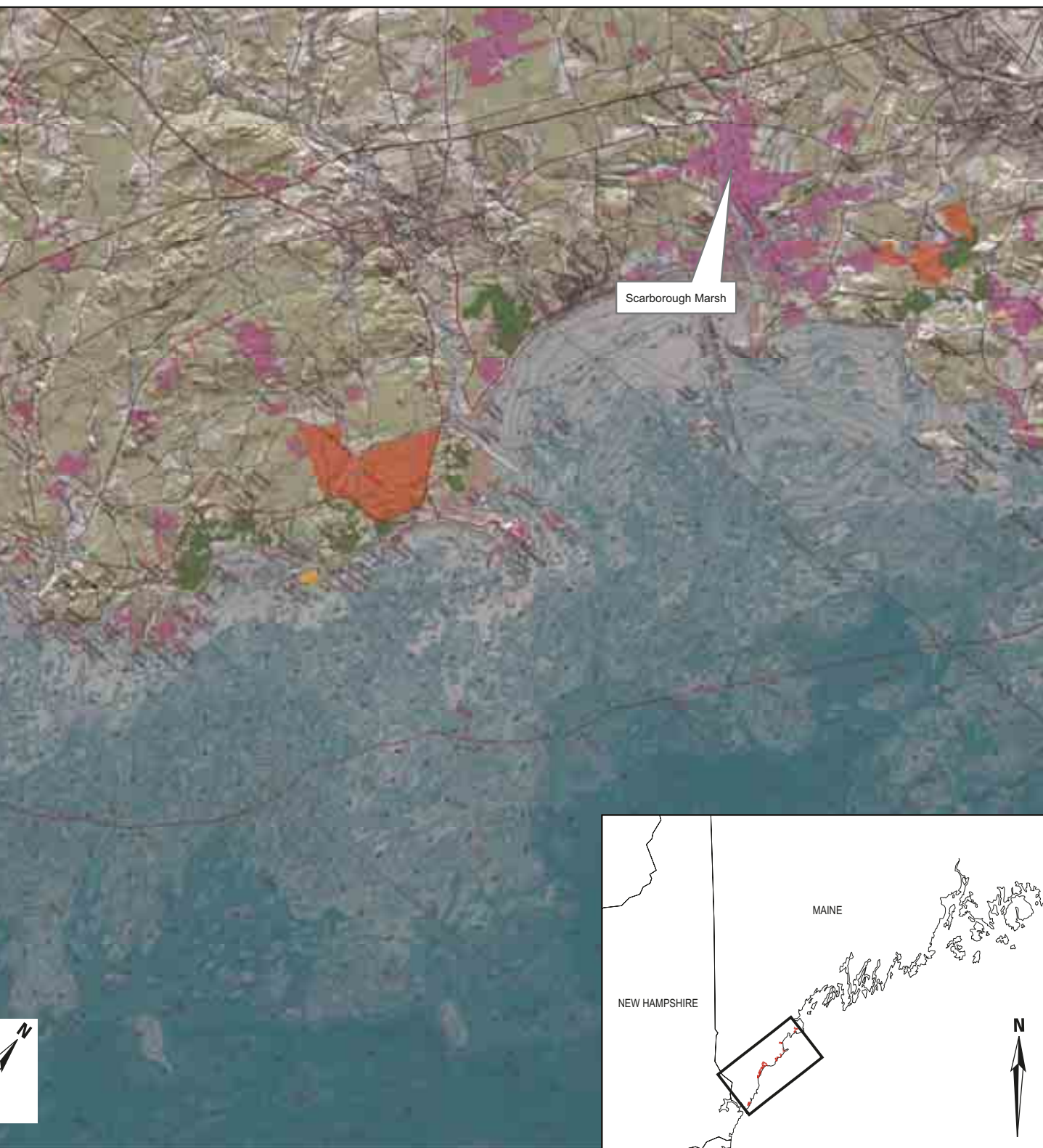
U.S. Fish and Wildlife Service

Rachel Carson National Wildlife Refuge - Map 1-2



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|--|---|
| RC NWR Ownership | Proposed Expansion Areas |
| RC NWR Easement | Other Conserved Lands |





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treaties on importing and exporting wildlife, assists States with their fish and wildlife programs, and helps other countries develop wildlife conservation programs.

The Service manual contains the standing directives for implementing those authorities, responsibilities, and activities. The manual can be accessed at <http://www.fws.gov/directives/direct.html>.

Special Service directives that affect the rights of citizens or the authorities of other agencies are published separately in the Code of Federal Regulations, and are not duplicated in the Service manual. Most of the current regulations that pertain to the Service are issued in 50 CFR parts 1-99. The CFR can be accessed at <http://www.access.gpo.gov/nara/cfr/index.html>.

The National Wildlife Refuge System and its Mission

The Refuge System is the world's largest collection of lands set aside specifically to protect fish and wildlife populations and habitats. It began in 1903, when President Theodore Roosevelt designated 3-acre Pelican Island, a pelican and heron rookery in Florida, as a bird sanctuary. Today, more than 540 national wildlife refuges encompass more than 93 million acres of lands and waters in all 50 states and several U.S. territories. At least 40 million visitors hunt, fish, observe and photograph wildlife, or participate in environmental education and interpretive activities on refuges across the nation each year.

When Congress passed the Refuge System Improvement Act in 1997, it established a unifying mission for the Refuge System, a new process for determining compatible public use activities on refuges, and the requirement to prepare a CCP for each refuge in the System. The act states that, first and foremost, the Refuge System must focus on wildlife conservation. It further states that the mission of the System, coupled with the purpose(s) for which each refuge was established, will provide the principal management direction on that refuge.

The mission of the Refuge System is

“To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” (P.L. 105-57; 111 STAT. 1253)

The Refuge System Improvement Act also declares that all existing or proposed refuge uses must be compatible with the refuge purpose and consistent with public safety (see appendix D). Each refuge manager determines the compatibility of an activity by evaluating its potential effect on refuge resources and determining whether it supports the System mission and does not interfere with or detract from refuge purposes and goals. The act designated six priority wildlife-dependent public uses that are to receive enhanced consideration in refuge planning: hunting, fishing, environmental education and interpretation, and wildlife observation and photography.

The Refuge System manual provides a central reference for policy governing the operation and management of the Refuge System not covered by the Service manual, including technical information on implementing refuge policies and guidelines. It can be reviewed at refuge headquarters.

Fulfilling the Promise

A yearlong process involving teams of Service employees who examined the Refuge System within the framework of Wildlife and Habitat, People and Leadership culminated with “Fulfilling the Promise: The National Wildlife Refuge System” (USFWS 1999), a vision for the Refuge System. The first-ever Refuge System Conference in Keystone, Colorado in October 1998 was attended by every refuge manager in the country, other Service employees, and scores of

conservation organizations. Many “Promises Teams” formed to develop strategies for implementing the 42 recommendations of the conference report. Information from such teams as Wildlife and Habitat, Goals and Objectives, Strategic Growth of the Refuge System, Invasive Species, and Inventory and Monitoring helped guide the development of the goals, strategies and actions in this CCP.

Refuge System Planning Policy

This policy establishes requirements and guidance for Refuge System planning, including CCPs and step-down management plans. It states that we will manage all refuges in accordance with an approved CCP which, when implemented, will achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; help achieve the goals of the National Wilderness Preservation System; and meet other mandates [Fish and Wildlife Service Manual (602 FW 1,2,3)].

Maintaining Biological Integrity, Diversity, and Environmental Health Policy

This policy provides guidance on maintaining or restoring the biological integrity, diversity, and environmental health of the Refuge System, including the protection of a broad spectrum of fish, wildlife, and habitat resources found in refuge ecosystems. It provides refuge managers with a process for evaluating the best management direction to prevent the additional degradation of environmental conditions and to restore lost or severely degraded environmental components. It also provides guidelines for dealing with external threats to the biological integrity, diversity, and environmental health of a refuge and its ecosystem (601 FW 3). See appendix B for more details on the Integrity Policy, how we used it to determine priority resources of concern, and how that led to the development of habitat goals and objectives at the Rachel Carson refuge.

Appropriate Refuge Uses Policy

This policy provides a national framework and procedure for refuge managers to follow in deciding whether uses are appropriate on a refuge. It also clarifies and expands on the compatibility policy (603 FW 2.10D), which describes when refuge managers should deny a proposed use without determining compatibility. When we find a use is appropriate, we must then determine if the use is compatible before we allow it on a refuge. This policy applies to all proposed and existing uses in the Refuge System only when we have jurisdiction over the use, and does not apply to refuge management activities or situations where reserved rights or legal mandates provide we must allow certain uses (603 FW 1). Appendix D further describes the Appropriate Refuge Uses Policy and describes its relationship to the CCP process.

Compatibility Policy

Federal law and Service policy provide the direction and planning framework to protect the Refuge System from incompatible or harmful human activities and ensure that Americans can enjoy its lands and waters. The Refuge System Improvement Act is the key legislation regarding management of public uses and compatibility. The compatibility requirements of the Act were adopted in the USFWS Final Compatibility Regulations and Final Compatibility Policy, published October 18, 2000 (Federal Register, Vol. 65, No. 202, pp. 62458-62496). That Compatibility Rule changed or modified Service regulations contained in chapter 50, parts 25, 26, and 29 of the Code of Federal Regulations (USFWS 2000b). The compatibility determinations for the Rachel Carson refuge can be found in appendix D along with additional information on the process. To view the policy and regulations online, visit <http://policy.fws.gov/library/00fr62483.pdf>.

Wildlife-Dependent Recreation Policy

The Improvement Act establishes that compatible wildlife dependent recreational uses (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) are the priority general public uses of the Refuge System, and are to receive enhanced consideration over other public uses in refuge planning and management. The Wildlife Dependent Recreation Policy explains how we will provide visitors with opportunities for those priority public uses on units of the Refuge System and how we will facilitate them. We are incorporating this policy as Part 605, chapters 1–7, of the Fish and Wildlife Service Manual.

Other Legal and Policy Mandates

Although Service and Refuge System policy and the purpose(s) of each refuge provide the foundation for its management, our administration of national wildlife refuges conforms consistent with a variety of other Federal laws, executive orders, treaties, interstate compacts, and regulations pertaining to the conservation and protection of natural and cultural resources. The Digest of Federal Resource Laws of Interest to the USFWS lists them. It can be accessed at <http://laws.fws.gov/lawsdigest/index.html>.

Chapter 4 of the draft CCP/EA evaluates compliance with the Clean Water Act, Clean Air Act, the National Historic Preservation Act, the Archeological Resources Protection Act, and the Endangered Species Act. Our draft CCP/EA was written to fulfill compliance with NEPA.

Conservation Plans and Initiatives Guiding This Project

North American Waterfowl Management Plan (NAWMP)

This plan outlines the strategies among the United States, Canada, and Mexico to restore waterfowl populations through habitat protection, restoration, and enhancement, and calls on the partners to manage sustainable landscapes, consult and cooperate, and use strong biological foundations to make decisions. Its implementation is accomplished at the regional level in 14 habitat Joint Venture partnerships and 3 species Joint Ventures: Arctic goose, black duck, and sea duck. Our project area lies in the Atlantic Coast Joint Venture, which includes all the Atlantic Flyway states from Maine to Florida and Puerto Rico. Five priority focus areas are identified for Maine. Four are coastal areas, and consist of 51,831 acres of wetlands and associated uplands in need of protection and management. Most of the refuge lies in Maine's West Coast Focus Area. A map of focus areas in Maine can be viewed at <http://www.acjv.org>.

The waterfowl goal for the Atlantic Coast Joint Venture is

"Protect and manage priority wetland habitats for migration, wintering, and production of waterfowl, with special consideration to black ducks, and to benefit other wildlife in the joint venture area."

The Black Duck Joint Venture Plan is also relevant for our project. Black ducks use the refuge during fall migration. The Final Draft—Strategic Plan (April 1993) can be accessed at <http://www.pwrc.usgs.gov/bdjb/bdjbback.htm>.

We used those plans as we developed our goals and objectives for waterfowl, their habitats, and land protection.

North American Waterbird Conservation Plan (Version 1, 2002)

This plan forms an independent partnership among individuals and institutions with the interest and responsibility for conserving waterbirds and their habitats. It is just one element of a multifaceted conservation program. The primary goal of the plan is to ensure that the distribution, diversity, and abundance of populations and habitats of breeding, migratory, and non-breeding waterbirds are sustained or restored throughout the lands and waters of North America, Central America, and the Caribbean. The plan provides a framework for conserving and managing colonially nesting water-dependent birds. In addition, it will facilitate continent-wide planning and monitoring, national, state, or provincial conservation action, regional coordination, and local habitat protection and management. Regional planning information is being prepared for the Mid-Atlantic New England Working Group.

**U.S. Shorebird
Conservation Plan (2004
Update) and Northern
Atlantic Regional
Shorebird Plan (Draft
2002)**

We used the plan in developing our objectives, actions and strategies for protecting and managing waterbirds. It can be accessed at <http://www.nawcp.org>. Additional information is available at <http://www.fws.gov/birds/waterbirds/manam/index.html>.

This plan is a partnership being undertaken throughout the United States to ensure that stable, self-sustaining populations of all shorebird species are restored and protected. Collaborators include local, state, and Federal agencies, non-governmental organizations, business-related sectors, researchers, educators, and policy makers. The plan was closely coordinated with NAWMP and Joint Venture professionals, as well as the Partners In Flight and North American Waterbird Plan teams as they concurrently developed their revised national plans. Those experts helped set conservation goals for each region of the country, identified important habitat and research needs, and proposed education and outreach programs to increase public awareness of shorebirds and the threats they face. The partnerships responsible for developing the plan remain active, and are working to improve and implement the plan's many recommendations.

The U.S. Shorebird Plan identifies three primary objectives.

- 1) Development of a standardized, scientifically-sound system for monitoring and studying shorebird populations that will provide practical information to researchers and land managers for shorebird habitat conservation
- 2) Identification of the principles and practices upon which local, regional and national management plans can effectively integrate shorebird habitat conservation with multiple species strategies
- 3) Design of an integrated strategy for increasing public awareness and information concerning wetlands and shorebirds

Regional plans, such as the North Atlantic Regional Shorebird Plan, are being developed as part of the overall strategy. The North Atlantic Plan is in draft, but provides detailed information on shorebird species of high conservation concern in the region. Once completed, the plan will enhance shorebird diversity and individual species' populations through regional population, habitat, research, education goals and objectives, and identify specific management needs and projects for implementation.

We used the national and regional plans in developing our Species and Habitats of Concern List (appendix B). The national plan can be accessed at <http://shorebirdplan.fws.gov/USShorebird.htm>. The website for accessing the regional plan is <http://shorebirdplan.fws.gov/RegionalShorebird/RegionalPlans.htm>. Additionally, the Program for International Shorebird Monitoring includes sites in and near the Rachel Carson refuge. See <http://www.shorebirdworld.org/fromthefield/PRISM/PRISM1.htm> for more information.

**Partners In Flight Landbird
Conservation Plans**

In 1990, Partners in Flight (PIF) was conceived as a voluntary, international coalition of government agencies, conservation organizations, academic institutions, private industry, and other citizens dedicated to reversing the population declines of bird species and "keeping common birds common." The foundation of PIF's long-term strategy for bird conservation is a series of scientifically based bird conservation plans, using physiographic provinces as the planning units.

Rachel Carson refuge falls in PIF Physiographic Area 9—Southern New England. Area 9 covers parts of northern New Jersey, southern New York including Long Island, most of Connecticut, all of Rhode Island, most of eastern Massachusetts, the southeastern corner of New Hampshire, and south coastal Maine (map 1-1). This area has experienced the greatest amount of urbanization of any part of the

Northeast, including the entire Boston—New York corridor. Urbanization and associated human activities severely threaten remaining high-priority habitats, especially maritime marshes and dunes, relict grasslands and mature deciduous forests. Forest fragmentation, which is not a major issue in most parts of the Northeast, is a severe factor threatening forest bird populations. Urban land now covers roughly one-third of the physiographic area. Remaining forests are a mixture of oak-hickory and other hardwoods, white pine-red pine forest, and pine-oak woodlands or barrens (Dettmers and Rosenberg 2000).

The goal of each PIF plan is to ensure long-term maintenance of healthy populations of native birds, primarily non-game birds. Within each physiographic area, the plans rank bird species according to their conservation priority, describe desired habitat conditions, develop biological objectives, and recommend conservation measures. Habitat loss, population trends, and vulnerability of a species and its habitats to regional and local threats all factor into the priority ranking. Many of the top-ranked species in the PIF plan either breed or migrate through the Rachel Carson refuge. The PIF plans can be accessed at <http://www.partnersinflight.org>.

The North American Landbird Conservation Plan (Rich, et al. 2004) identifies a suite of Watch List and Stewardship Species that represent the landbirds of greatest continental importance for conservation action. Many of those are found on the Rachel Carson refuge and other refuges in the Northeast.

**Executive Order 13158 on
Marine Protected Areas**

The Order requires the Department of the Interior and the Department of Commerce to develop “a scientifically-based, comprehensive national system of Marine Protected Areas (MPA) representing diverse marine ecosystems, and the Nation’s natural and cultural resources.” An inventory of potential MPAs was completed, and the refuge, due in part to its co-location with the Wells National Estuarine Research reserve, is on that list.

**North American Bird
Conservation Initiative
(NABCI)**

The NABCI brings together the landbird (PIF), shorebird, waterbird, and waterfowl plans into a coordinated effort to protect and restore all native bird populations and their habitats in North America. All bird conservation partnerships reduce redundancy in the structure, planning and implementation of conservation projects. NABCI uses Bird Conservation Regions (BCRs) to guide landscape-scale, science-based approaches to conserving birds and their habitats (map 1–1).

The Rachel Carson refuge lies in the New England Mid Atlantic Bird Conservation Region (BCR 30). This CCP uses the priorities set forth in the PIF Physiographic Area 9 Plan, a subsection of BCR 30, along with priorities of other bird conservation plans. Individual bird conservation plans also help guide bird monitoring, restoration, and habitat management on the refuge. A meeting among conservation partners for BCR 30 in December 2004 resulted in consensus on the highest priority species, habitats, geographic areas and conservation actions. The refuge sits on the northern edge of BCR 30, close to BCR 14.

**Regional Wetlands
Concept Plan—Emergency
Wetlands Resources Act
(1990)**

In 1986, Congress enacted the Emergency Wetlands Resources Act to promote the conservation of our Nation’s wetlands. The act directed the Department of Interior to develop a National Wetlands Priority Conservation Plan identifying the location and types of wetlands that should receive priority attention for acquisition by Federal and state agencies using Land and Water Conservation Fund appropriations. In 1990, our Northeast Region completed a Regional Wetlands Concept Plan to provide more specific information about wetlands resources in the Northeast. A total of 850 wetland sites were identified for protection because of their value, scarcity, and vulnerability. In Maine, 71 wetland sites were identified, with 34 sites (43,445 acres) located within 10 miles of the coastline. We used that information as we developed our land protection strategies.

Piping Plover Recovery Plan

The Rachel Carson refuge follows the guidelines of the recovery plan for the management of the federal-listed threatened Atlantic Coast piping plover (*Charadrius melodus*) (USFWS 1996a). The refuge manages multiple sites for piping plovers, and works with partners to manage off-refuge sites.

Tern Management Plan

The Tern Management Plan provides historic background, a review of factors limiting populations, life history information, and techniques for managing and monitoring the tern species nesting from New York to Newfoundland (USFWS 2000). It also identifies research needs and assesses the size and distribution of tern populations in the region. Primarily, it focuses on coastal populations of common, Arctic, roseate, and least terns. It also provides specific management techniques to help achieve the goals set forth in several previous planning approaches that have been developed across the Northeast region. We used this plan in developing our tern objectives and strategies.

Maine Department of Inland Fisheries and Wildlife: Maine’s Comprehensive Wildlife Conservation Strategy

In fall 2001, Congress established a new State Wildlife Grants program that provides funds to state wildlife agencies for the conservation of fish and wildlife and their habitats. Each state is charged with developing a comprehensive wildlife conservation plan by October 2005. As mandated by the SWG program, state fish and wildlife agencies are determining which species and habitats are in greatest need of conservation. Rachel Carson refuge staff consulted with Maine Inland Fisheries and Wildlife staff to consider opportunities for the refuge in conserving species identified in Maine’s Comprehensive Wildlife Conservation Strategy. We included the state’s species priorities in our “Potential Resources of Concern” table in appendix B.

Refuge Operational Plans (“Step-Down” Plans)

The Service Manual, Part 602, Chapter 4, “Refuge Planning Policy,” lists more than 25 step-down management plans that generally are required on refuges. Those plans contain specific strategies and implementation schedules for achieving refuge goals and objectives. Some plans require annual revisions; others are revised on a 5- to 10-year schedule. Some require additional NEPA analysis, public involvement, and compatibility determinations before they can be implemented. We provide below the current status of step-down plans needed for the refuge, and incorporate by reference those now up-to-date into this CCP.

Plans up-to-date

- Fire Management Plan, 1997 (includes prescribed fire and wildfire management direction; annual burn plans are also completed)
- Continuity of Operations Plan, 2004
- Hunt Plan, 1990
- Sport Fishing Plan, 2000

Plans being prepared or now in draft form

- Land Protection Plan (LPP)
- Habitat Management Plan (HMP)

Plans that will need to be completed

- Inventory and Monitoring Plan (IMP)
- Population Monitoring Plan

- Disease Prevention and Control Plan
- Visitor Services Plan
- Law Enforcement Plan
- Integrated Pest Management Plan
- Cultural Resources Management Plan
- Fisheries Resources Management Plan
- Safety Plan
- Water Rights Plan
- Pollution Control Plan
- Compliance Requirements

Rachel Carson Refuge Vision Statement

Our eponym, Rachel Carson, inspired our vision, which is defined by the mission of the Refuge System. As champions of Rachel Carson's principles, and in recognition of the connectedness of all living things, we are committed to finding reasonable accommodation for the needs of humans and wildlife. Within 15 years, the Rachel Carson refuge will have protected 14,684 acres of habitat to benefit trust resources.

Rachel Louise Carson
writer, scientist, ecologist
(1907–1964)

Rachel Carson began a 15-year career with the U.S. Fish and Wildlife Service in



1936 as an aquatic biologist, and rose to become Editor-in-Chief of all publications for the Service. With the success of her second book, "The Sea Around Us," she was able to resign from the Service and purchase a cottage on Southport Island, where she researched its beaches and tide pools for "The Edge of the Sea."

Rachel Carson wrote about the interconnectedness of all living things; each species has its own ties with others, and all are related to the earth. This is the message of "Silent Spring" and the earth-sea trilogy. She simply and convincingly explained the connections between humans and all creatures of the Earth. Persevering under industry and government pressure to abandon her research, in "Silent Spring" she linked the unrestrained use of post-World War II chemical pesticides with their fearsome biological consequences. That book is also credited with launching the modern environmental movement.

In formal recognition of her achievements, Congress renamed and dedicated the former Coastal Maine National Wildlife Refuge in her honor on June 27, 1970.

Refuge Goals

We developed these goals after consideration of refuge purposes, the Service and Refuge System missions, our vision, and the mandates, plans, and conservation initiatives described above. These are intentionally broad, descriptive statements of purpose. They highlight elements of our vision statement to be emphasized in future refuge management. The biological goals take precedence, but otherwise, the goals are not presented in any particular order.

- Goal 1 Perpetuate the biological integrity and diversity of coastal habitats to sustain native wildlife and plant communities, including species of conservation concern.**
- Goal 2 Perpetuate the biological integrity and diversity of freshwater habitats to sustain native wildlife and plant communities, including species of conservation concern.**
- Goal 3 Perpetuate the biological integrity and diversity of upland habitats to sustain native wildlife and plant communities, including species of conservation concern.**
- Goal 4 Develop the Rachel Carson National Wildlife Refuge as an outstanding center for research and demonstration emphasizing land management techniques for restoring and sustaining healthy estuarine ecosystems in concert with the national Land Management Research Demonstration (LMRD) program.**
- Goal 5 Increase appreciation and stewardship of coastal Maine wildlife and their habitats by providing positive wildlife-dependent experiences for refuge visitors.**
- Goal 6 Foster off-refuge cooperative actions and partnerships to promote and further refuge goals.**